



# Respiratory Diseases of Poultry

Issued by  
POULTRY BRANCH

Published by the direction of  
HON. D. B. MacMILLAN  
Minister of Agriculture

Distributed by  
AGRICULTURAL EXTENSION SERVICE  
Department of Agriculture

## SIMPLE COLDS

**Cause:** The cause is unknown. Predisposing factors are poor housing conditions, poor ventilation, draughts, crowding, infestation with worms or mites, chronic coccidiosis and inadequate feeding, introducing new birds on to the premises without the proper ten-day quarantine period.

Do not confuse colds with irritation due to dust from ashes or from mouldy litter, etc.

**Symptoms:** The first indication is a thin watery discharge from the nostrils. Dust, straw, peat or other material may stick to the nostrils, completely closing them so that the bird has to breathe through its mouth. There is, usually, no offensive odour.

**Treatment:** Remove the cause, i.e., change the housing conditions and remove any predisposing factor. If worms or mites are present, treat for them (see leaflets on worms and mites). If chronic coccidiosis is present, dispose of all thin or weak birds and treat the remainder. (See leaflet on coccidiosis). Mild colds may disappear without treatment. In any event, give Epsom salts (12 oz. to 100 birds), dissolved in hot water, added to the drinking water. Add 2% of a good grade of fish oil to the mash. Supply green feed, *ad lib*. If no green feed is available, add some good grade alfalfa leaves and blossoms to the mash. Spray with emulsified eucalyptus, following the manufacturer's direction, or with a mixture of glycerine (3 parts), formalin (15 parts), and water (82 parts). If colds assume a virulent nature, isolate all sick birds. Cleanse nostrils and inject a few drops of 15% solution of argyrol into the nostrils and also into the eyes, if they are affected. A drop of iodine in the nostrils, swabbing the throat with iodine or coal oil will assist. HTH 15 used according to instructions on the container, is also very good.

## EPIDEMIC COLDS

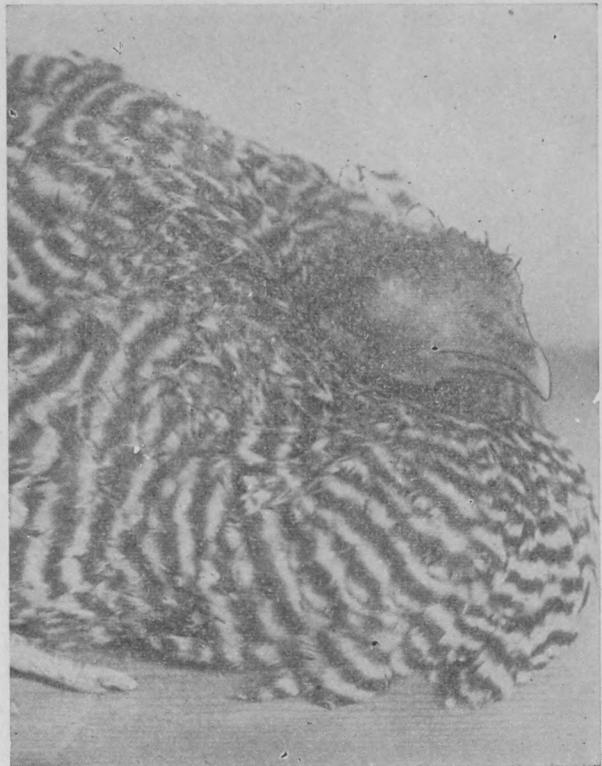
These are difficult to differentiate from the simple colds. However, they do not yield to treatment and are infectious and the colds persist.

**Cause:** Unknown, as in the case of simple colds.

**Treatment:** As for simple colds. Birds with persistent colds should be culled out. If the whole flock is affected, dispose of all birds, clean and disinfect the premises and start afresh.

## INFECTIOUS ROUP

This is a highly infectious disease, affecting nostrils and eyes and frequently follows what were regarded as simple colds. It is characterized by an offensive odour.



**Cause:** Unknown. Predisposing factors the same as for colds.

**Symptoms:** At first as for simple colds. Secondary symptoms are a closing of the eyes and plugging of the cleft in the roof of the mouth with hardened pus, the gathering in the eyes resulting in a badly swollen head. (See illustration).

**Treatment:** Early disposal of all affected birds. Treat remainder of flock as previously mentioned for simple colds. Change drinking water frequently, and disinfect drinking utensils.

—From original photo by  
F. E. Graesser  
Veterinary Laboratory,  
Edmonton,

#### DIPHTHERETIC ROUP

This is not common in Alberta. It appears to be associated with fowl pox or chicken pox.

**Cause:** A filterable virus.

**Symptoms:** False membranes form in the nostrils, mouth and throat. These become thickened and gradually suffocate the bird. The birds stand with heads extended, swallowing becomes difficult, the heads swell with eyes nearly closed, and the combs become pale and cold. There is an offensive odour from the breath.

**Treatment:** Kill and burn all infected birds. Disinfect premises and yards. With slightly affected birds, if treatment is desired, remove membranes with a sharp knife and paint affected parts with iodine and then apply carbolated vaseline two or three times daily till wounds are healed.

#### BRONCHITIS

This rarely occurs in pullets on range unless they are left out too long in the fall, but it is prone to occur soon after pullets are put into laying houses.

**Cause:** Poor sanitation, sudden changes in temperature or environment, and exposure to draughts, introducing new birds on to the premises without the proper ten-day quarantine period.

Strong vigorous birds rarely suffer from bronchitis, and if free from parasites, may recover without treatment, even if they do become affected. Birds of low vitality may be affected without any deaths occurring, but a lowering of egg production will occur. The "set back" may last up to six weeks.

**Symptoms:** Sneezing and coughing and in some cases, listlessness.

**Treatment:** Spray with amulsified eucalyptus (according to manufacturer's directions), or with a mixture of glycerine (3 parts), formalin (15 parts) and water (82 parts), after the birds have gone to roost. HTH 15 (according to instructions on the container) is also very good.

**Prevention:** Provide clean, dry quarters without draughts.

## NUTRITIONAL ROUP

**Cause:** Deficiency of Vitamin A.

**Symptoms:** Very similar to those of infectious roup, except that there is no offensive odour. White pustules appear in the throat. (See illustration).

**Treatment:** Increase Vitamin A content of feed by feeding greens *ad lib*, adding alfalfa leaves and blossoms to the mash or adding 2% of good fish oil of high Vitamin A content.

Inadequate amounts of Vitamin A may cause nutritional roup in chicks four weeks old, or it may not show for two or three months, affected birds being slow to develop.

**Prevention:** Prevention is simple. Yellow corn, greens, alfalfa leaves and blossoms, and good fish oil, are all excellent sources of Vitamin A 5% of alfalfa leaves and blossoms, or 1% - 2% of good fish oil, will prevent the condition.

An advanced case of vitamin A deficiency showing the pharynx and esophagus studded with pustules.

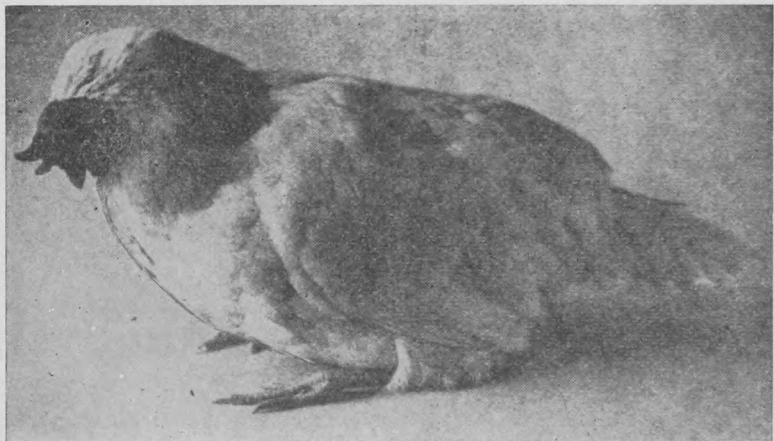
—Courtesy of University of California.



## LARYNGOTRACHEITIS (Infectious Bronchitis)

This is a highly infectious and fatal disease of chickens that is extremely difficult to control.

**Cause:** A filterable virus, as far as is known, and introducing new birds on to the premises without the proper ten-day quarantine period.



An advanced case of Laryngotracheitis. Attitude during expiration.

—Courtesy University of California.



Same fowl. Attitude during inspiration.

—Courtesy University of California.

**Symptoms:** First symptoms are "watery eyes" and a tendency to stand around and remain quiet. This is soon followed by coughing and sneezing, and violent movements of the head and sometimes of the wings and body, in an effort to remove mucus from the throat. Expelled mucus is usually bloody. The birds usually adopt a prone attitude. The head is stretched forward as the bird inhales, and then is drawn back to the body. There is a gurgling sound as the bird inhales. (See illustration). Death results from suffocation.

**Treatment:** There is no satisfactory treatment. Spraying as for bronchitis may assist the birds to recover. However, birds that recover commonly remain carriers of the disease and their retention may result in outbreaks of infectious bronchitis from year to year.

Slaughter all affected birds and burn the carcasses. The remainder of the birds that have been exposed to infection, should be marketed as soon as egg production is finished.

**Prevention:** Avoid poor ventilation, excessive humidity and overheating. Do not place birds of low vitality in the chicken house. After an outbreak, disinfect the house thoroughly before putting young stock into it. Do not buy birds from flocks that have had, or have been exposed to this disease. Vaccination for infectious bronchitis or other respiratory diseases should be used only upon recommendation by the Department.

#### CHICK BRONCHITIS

This occurs in chicks, usually less than three weeks old.

**Cause:** A filterable virus.

**Symptoms:** The same is in adult birds.

**Treatment:** There is no satisfactory treatment.

**Prevention:** Quarantine infected stock. Spray with emulsified eucalyptus or the spray given for bronchitis. To rid premises of infection, discontinue brooding operations for at least three weeks, thoroughly cleaning and disinfecting brooder houses, stoves, drinking fountains and feed troughs before they are used again.

**Note:** All the foregoing diseases, with the exception of Nutritional Roup, are transmitted in drinking water, infected litter or contaminated food. Sanitation is essential in prevention, as well as in treatment of disease. Infected litter must be burned and feed and water utensils thoroughly cleaned and disinfected.

Spraying every second day with the formalin or emulsified eucalyptus sprays, when the birds are on the perches, is a sound precaution against colds and bronchial ailments.

Some dealers in poultry, report satisfactory results by spraying daily with HTH 15, a patented product which may be obtained from poultry supply houses.